

# Proposed Biodiversity Indicators

Presented by Becky Maden & Maddie Kempner

Soil Health & PES Working Group

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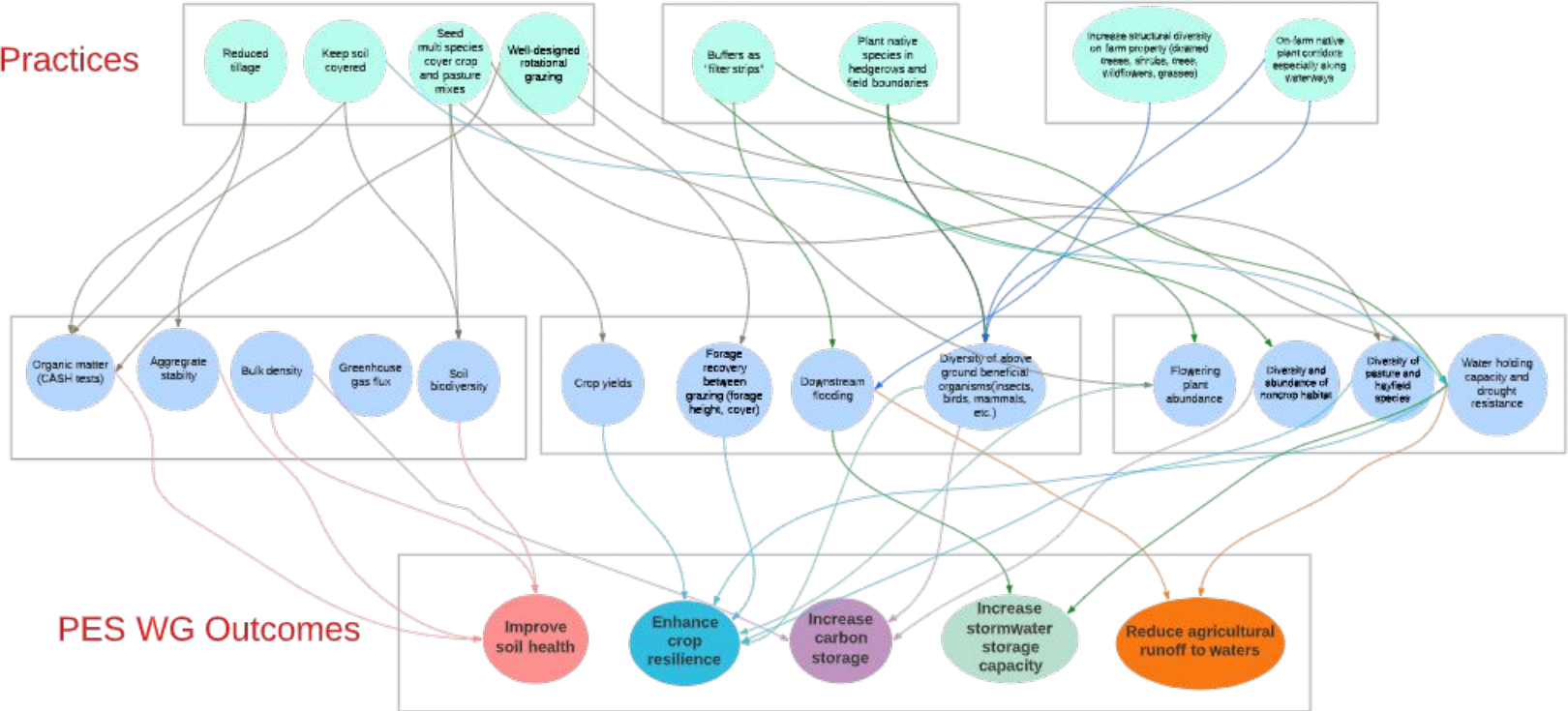
# Why Biodiversity?

"In particular, a diversity of genes, species and ecosystems are essential to the continued flow of ecosystem services (MA 2005, Perrings et al. 2006, Dale and Polasky 2007).

In agroecosystems, ecosystem services provided at these respective biological levels include genes for drought tolerance, species that pollinate and control pests and land cover that regulates water flow (Swinton et al. 2007, Zhang et al. 2007) as well as the primary ecosystem service of a farm, biomass production." from [\*A farm-scale biodiversity and ecosystem services assessment tool: the healthy farm index\*](#)

"We measure plant life as well as the numbers of invertebrates, insects, birds, mammals, and humans. Life is the currency that drives carbon sequestration. That's the way the planet works. If we're not measuring life, then we're missing out." quote by Jonathan Lundgren from [\*Soil Proof: the plan to quantify regenerative agriculture\*](#)

## Practices



## PES WG Outcomes

# Proposed Process

- Farmer enrolls, works with service provider to develop a plan.
- Farmer receives base payment for enrolling and engaging in planning.
- Biodiversity structured as an add-on, incentivized through synergy payments and thoroughly integrated into farmer planning process.
- Farmer has input into weighting of specific metrics based on their farm's geography, production type and surrounding habitats to ensure the plan and goals are appropriate.
- Farmer does not need to demonstrate progress on every metric annually in order to receive a payment. Indicators are intended as a "pick-list" for farmers to choose from in working with service providers.
- Each year farmer demonstrates progress in  $\frac{3}{4}$  areas (for example) and receives additional payment.
- Review progress on farm with service provider every 3-5 years,

# Proposed Process

From [\*A farm-scale biodiversity and ecosystem services assessment tool: the healthy farm index\*](#):

"The identification of metric targets and weights is a collaborative process between local researchers, practitioners and farmers, though farmer input is essential throughout the process to ensure that the identified goals are applicable and realistic.

...

Metric targets represent a goal as identified by the collaborative process involving local farmers and researchers. Although biodiversity conservation is implicit in the use of the HFI, importantly, the goal of the index is not to encourage farmers to maximize biodiversity but rather to restore and maintain a level of diversity beneficial to the farm and local ecosystem and that contributes to local and regional conservation efforts.

...

rather than establishing an idealistic (and ultimately impractical) objective to maximize all metrics, the HFI allows farmers to focus on pragmatic goals for each metric, to select suitable targets and over time, to examine emerging trade-offs and synergies."

# Proposed Principles

- Voluntary program
- Reliance on farmer observations & reporting
- Data collected by farmers benefits farmers directly
- Applicable to all farm types and sizes
- Integrate with existing programs/processes where possible (NRCS, organic certification, etc.)

# Proposed Metrics

# Sources / Ideas

- ❖ [Healthy Farm Index](#)
- ❖ Wild Farm Alliance  
[Positive Indicators and Red Flags](#)
- ❖ Wild Farm Alliance  
[How to Conserve Biodiversity on the Farm](#)

## Healthy Farm Index Beta V2.0

[Introduction](#)[How it Works](#)[Selection of Weights](#)[Selection of Targets](#)[Current Data](#)[Biodiversity Scores](#)[Ecosystem Service Scores](#)[Your HFI Score & Summary of Results](#)[So Whats Next? Adaptive Management and Monitoring](#)[Resources](#)

The Healthy Farm Index (HFI) is a tool for a farmer or landowner to monitor crop rotations, wildlife, stream protection, and other indicators of biological diversity to understand how they improve soil, water, and environmental health. Choosing what to monitor, how to choose targets for change, and how to translate this data into something meaningful are all challenging. The HFI provides a user-friendly tool for farmers to assess current biodiversity on the farm and monitor change over time. In addition, the HFI allows farmers to set targets for change and communicate their success to others.

Use the tabs above for guided navigation

Or access the linked manual

[Weights for Biodiversity](#)[Weights for Ecosystem Services](#)[Targets for Biodiversity](#)[Targets for Ecosystem Services](#)[Current Data for Biodiversity](#)[Current Data for Ecosystem Services](#)

How important are each of the following indicators. A larger weight (e.g., 20) suggests it is more important.

Number of crops types planted on the farm



Number of livestock types on the farm





# Remaining Questions for Working Group & Program Administrators

- Payment structure
- Farmer outreach
- Public perception/acceptance/WTP